



Published in final edited form as:

Ann Intern Med. 2015 July 21; 163(2): 149–150. doi:10.7326/L15-5111.

Tuberculosis Incidence in Immigrants and Refugees

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IN RESPONSE

Dr. Challa suggests several limitations of the data in our analysis, raising doubts about the effect of a newly implemented, overseas, culture-based TB screening algorithm on reducing the importation of this condition to the United States. We discussed some of these limitations in our article but have reached a different conclusion.

Newly arrived nonimmigrant visitors contribute to the TB burden in the United States (1). The mean annual admission of nonimmigrant visitors between 2007 and 2012 decreased by 8.5% compared with that between 2002 and 2006. However, during the same period, the mean annual number of reported TB cases among foreign-born persons within 1 year of arrival decreased by 24.7%. This discrepancy in reductions indicates that the decrease in admissions of nonimmigrant visitors alone could not account for the overall decline of TB cases in the newly arrived, foreign-born population.

Dr. Challa suggests that more foreign-born persons were likely to have received treatment for latent TB infection between 2007 and 2012, causing the decline of TB among newly arrived, foreign-born persons. This assumption is not consistent with the results of previous studies. For example, within 1 year of arrival in the United States, only 5.8% of TB cases were likely due to reactivation of latent infection (2). Therefore, identifying and treating latent TB infection is unlikely to explain much of the observed decline in TB cases among foreign-born persons within 1 year of arrival.

Dr. Challa indicates that our analysis may not have adequately accounted for clinically diagnosed cases in the old algorithm and suggests that clinical assessment alone might have identified most smear-negative/culture-positive cases. We have found no studies to support this assumption and do not believe that panel physicians could diagnose such large numbers of applicants with smear-negative/culture-positive TB without *Mycobacterium tuberculosis* culture screening. During the follow-up evaluation after arrival, active TB was diagnosed in

Disclosures: Authors have disclosed no conflicts of interest. Forms can be viewed at www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M14-2082.

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1.8% of persons with class B1 TB identified by the culture-based algorithm but in 3.5% of persons with class B1 or B2 TB identified by the smear-based algorithm. These results were consistent with those of other studies (3, 4), suggesting that the culture-based algorithm is more effective.

Despite limitations, we believe that our data indicate that implementation of the culture-based algorithm substantially prevents the importation of TB to the United States.

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